Pre University Test
B.Tech CSE Programmes
7th Semester, 2023

Paper Code: ETCS-423   Subject: Advanced DBMS

Time: 1½Hrs.   Max. Marks: 30

Note: Attempt Q. No. 1 which is compulsory and any two more questions from remaining.

Q. No.	Question	Max. Marks	CO	BL
1	a) Differentiate between current database and temporal database.	2.5	CO3	L2
	b) Explain requirement of mobile database.	2.5	CO3	L2
	c) Discuss different data types used in postgre SQL.	2.5	CO3	L2
	d) Describe use of SOAP envelop.	2.5	CO3	L2
2	a) Describe Temporal Database. Why Query optimization is needed.	5	CO3	L2
	a) Explain advantage of Temporal ,Mobile and Object database.	5	CO3	L2
3	b) Describe Web Services. Explain SOAP in detail.	5	CO4	L2
	c) Explain in detail XML and its structure.	5	CO4	L2
4	a) Describe SQL standards? Explain standard of interoperability and integration.	5	CO4	L2
	b) Describe XQuery and Xpath in detail.	5	CO4	L2

MID TERM EXAMINATION

CSE PROGRAMMES (UNDER THE AEGIS OF USICT)

4th Semester, October, 2023

Paper Code: ETCS-423　　　　　　　　　　Subject: Advanced DBMS

Time: 1½ Hrs.　　　　　　　　　　　　　　　Max. Marks: 30

Note: Attempt Q. No. 1 which is compulsory and any two more questions from remaining.

Q. No.	Question	Max. Marks
1	a) Briefly explain the importance of PL/SQL programming. b) What do you mean by a query processing? How is it being carried out? c) Write about the different types of PL/SQL database objects used. d) Briefly describe the use of programmatic SQL and Dynamic SQL.	2.5*4=10 marks
2	a) Explain the difference between parallel database architecture and distributed database architecture. b) Differentiate between Functions and procedures in detail with the help of examples.	5 marks 5 marks
3	a) What do you understand by Packages used in PL/SQL? Explain the use of packages with example. b) Explain the different types of replication techniques used in DDBMS.	5 marks 5 marks
4	a) Write a PL/SQL program to find the length of a string and reverse it. b) What are the advantages of Distributed Database system. List the impact of emerging database standards. c) Define RDBMS.	5 marks 4 marks 1 mark

Enrolment No. 0018007221

MID TERM EXAMINATION

B.TECH PROGRAMMES (UNDER THE AEGIS OF USICT)

7th Semester, November, 2023

Subject: Information Security

Paper Code: ETCS-401

Max. Marks: 30

Time: 1½ Hrs.

Note: Attempt Q. No. 1 which is compulsory and any two more questions from remaining.

Q. No.	Question	Max. Marks
1. (a)	Explain distinct legal issues and ethical issues in information security.	2.5
(b)	Differentiate between threat and vulnerability.	2.5
(c)	Explain various security threats to E-commerce.	2.5
(d)	Discuss confidentially and integrity in information systems.	2.5
2. (a)	How do you categorize the information security risks in an organization? Explain with concrete example.	5
(b)	What is mobile security? Discuss various challenges in mobile security.	5
3. (a)	Provide an explanation to EDI and its constituent components in detail.	5
(b)	Considering electronic payment system and traditional payment system, which one is more beneficial? Justify your answer.	5
4. (a)	Explain cyber forensics and software forensics in detail.	5
(b)	Elaborate the characteristics and importance of Distributed Information System.	5

MID TERM EXAMINATION

B.TECH PROGRAMMES (UNDER THE AEGIS OF USICT)

Seventh Semester, October-2023

Paper Code: ETCS-403   Subject: **Software Testing and Quality Assurance**
Time: 1½ Hrs.   Max. Marks: 30

Note: Attempt Q. No. 1 which is compulsory and attempt any two more questions from remaining.

Q. No.		Max. Marks
1. (a)	What is the difference between Black Box Testing and White Box Testing?	2
(b)	What are the measures of Software Quality? Elaborate.	2
(c)	What is the role of Quality Assurance in Software Development? How is it different from Quality Control?	2
(d)	Differentiate between Verification and Validation.	2
(e)	What is the function of the Debugger?	2
2. (a)	What do you mean by methods of quality management? Illustrate their essence and benefits.	5
(b)	Discuss the limitations of testing. Why do we say that complete testing is impossible?	5
3. (a)	Consider a program to determine whether a number is odd or even and print the message NUMBER IS EVEN or NUMBER IS ODD. The number may be any valid integer. • Generate boundary value test cases and robust test cases. • Create an equivalence class and generate test cases.	6
3. (b)	Discuss the structural testing. How is it different from functional testing?	4

4. (a)	Consider a program to input two numbers and print them in ascending order given below. Find all du-paths and identify those du paths that are definition clear. Also find all du_paths, all users, and all definitions and generate test cases for these paths.
	 #include <stdio.h>
	 #include <conio.h>
	 1. void main()
	 2. {
	 3. int a,b,t;
	 4. clrscr();
	 5. printf("Enter the first number")';
	 6. scanf("%d", &a);
	 7. printf("Enter the second number")';
	 8. scanf("%d", &b);
	 9. if (b>=a) {
	 10. t=a;
	 11. a=b;
	 12. b=t;
	 13. }
	 14. printf("%d, %d"; a,b);
	 15. getch();
	 16. }
		5

(b)	What are the costs involved in Quality? Discuss various methods deployed for Quality Management.	5

MID TERM EXAMINATION
B.TECH PROGRAMMES (UNDER THE AEGIS OF USICT)
7th Semester, Nov 2023

Paper Code: ETEC 405   Subject: Wireless Communication

Max. Marks: 30

Time: 1½ Hrs.

Note: Attempt Q. No. 1 which is compulsory and any two more questions from remaining.

Q. No.	Question	Max. Marks
1	**Answer the following**	
(a)	How will the Co channel interference is affected by choosing a smaller value of cluster size in cellular wireless communication system?	2
(b)	What do you mean by the term Mobile switching center ?	2
(c)	Give comparative analysis of 1G and 2G systems.	2
(d)	What is cell breathing in IS-95 CDMA system ?	2
(e)	What are the causes of slow and fast fading? Distinguish between them.	2
2 (a)	Explain different performance criteria of a cellular system with special emphasis on *Grade of Service*.	5
(b)	What is the need for diversity ? Discuss different diversity techniques.	5
3 (a)	Draw the basic PCS architecture and explain the network components briefly.	5
(b)	If 25 MHz of total spectrum is allocated for a duplex wireless cellular system and each simplex channel has 25 KHz RF bandwidth, find: i) Number of duplex channels ii) Total number of channel per site, if N=4 cell reused is used.	5
4(a)	Draw and explain the GSM architecture with interfaces.	5
(b)	What are the salient features of spread spectrum systems in wireless communication?	5

MID TERM EXAMINATION

B.TECH CSE (UNDER THE AEGIS OF USICT)

7th Semester, Nov 2023

Paper Code: ETCS-413   Subject: Data Mining and Business Intelligence

Time: 1½ Hrs.   Max. Marks: 30

Note: Attempt Q. No. 1 which is compulsory and any two more questions from remaining.

Q. No.	Question	Max. Marks	COs	BLs
1		2.5*4=	CO1	L1
	a) Define Data warehouse. Discuss its characteristics.	10 marks	CO2	L2
	b) Give two major differences between STAR schema and Snowflake schema.			
	c) What is Dimensional modelling fand how it is different from the E-R Model?		CO2	L3
	d) Differentiate between Dependent and Independent Data marts.		CO1	L2
2	a) Differentiate between Database system and Data warehouse.	5 marks	CO1	L2
	b) Discuss the basic components of data warehouse, explain with the help of diagram.	5 marks	CO1	L2
3	a) Why Meta data is important? Discuss the multidimensional data. What are the various types of meta data?	6 marks	CO1	L4
	b) Discuss about the basic differences between OLAP and Data mining.	4 marks	CO2	L3
4	a) Describe the three-tier architecture of Data Warehouse.	6 marks	CO1	L2
	b) Give your views regarding HYPERCUBE. How do they apply in OLAP?	4 marks	CO2	L4

MID TERM EXAMINATION

CSE PROGRAMMES (UNDER THE AEGIS OF USICT)

7th Semester, 2023

Paper Code: ETCS-423   Subject: Advanced DBMS

Time: 1½Hrs.   Max. Marks: 30

Note: Attempt Q. No. 1 which is compulsory and any two more questions from remaining.

Q. No.	Question	Max. Marks	CO's
1	a) Differentiate between procedures and functions in PL/SQL.	2.5*4=10 marks	CO 1
	b) Differentiate between DDL and DML languages.		CO 1
	c) Differentiate between Distributed DBMS and Object oriented DBMS.		CO 1
	d) Difference between Embedded SQL and Dynamic SQL.		CO 1
2	a) Explain the difference between parallel database architecture and distributed database architecture.	5 marks	CO 1
	b) Explain 3-level of architecture of DBMS. What are different types of database users?	5 marks	CO 1
3	a) What do you mean by a trigger? Explain the different types of triggers.	5 marks	CO 2
	b) Discuss the Shadow paging and Log based recovery in terms of transaction control.	5 marks	CO 2
4	a) Discuss the ACID property in detail.	5 marks	CO 2
	b) Explain serializability in transaction management. Check whether the given schedule S is conflict Serializable or not- $S : R_1(A) , R_2(A) , R_1(B) , R_2(B) , R_3(B) , W_1(A) , W_2(B)$	5 marks	CO 2

CLASS TEST

B.TECH(CSE) PROGRAMMES (UNDER THE AEGIS OF USICT)

7th Semester, Oct, 2023

Paper Code: ETCS-413   Subject: Data Mining and Business Intelligence

Time: 1½Hrs.   Max. Marks: 30

Note: Attempt Q. No. 1 which is compulsory and any two more questions from remaining.

Q. No.	Question	Max. Marks
1	a) Define DataWarehouse .Discuss its characteristics. b) What is meta data? Why it is important? c) Give two major differences between STAR Schema and Snow flake Schema. d) Discuss about Data Mart.	2.5*4=10 marks
2	a)What is Dimensional modelling and how it is different from ER model? b) Differentiate between data warehouse and data base systems.	5 marks 5 marks
3	a)Explain the ETL process. b) Explain the three tier architecture of data warehouse.	6 marks 4 marks
4	a) Explain multidimensional data model with a neat diagram. b) Differentiate between ELT and ETL. Give the benefits of Datawarehouse.	6 marks 4 marks